

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>Co10311</b>	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/006010</b>	International filing date (day/month/year) <b>03.06.2004</b>	Priority date (day/month/year) <b>26.06.2003</b>
International Patent Classification (IPC) or national classification and IPC		
Applicant <b>CONSORTIUM FÜR ELEKTROCHEMISCHE INDUSTRIE GMBH</b>		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>7</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>1</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input checked="" type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand	Date of completion of this report	
Name and mailing address of the IPEA/EP	Authorized officer	
Facsimile No.	Telephone No.	

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/006010

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-31 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 2-10 \_\_\_\_\_ received by this Authority on 20.01.2005 with letter
- nos.\* 1 \_\_\_\_\_ received by this Authority on 14.04.2005 with letter
- ☐ the drawings:
- sheets \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☒ the claims, nos. 1 \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims		YES
	Claims	1-11	NO
Inventive step (IS)	Claims		YES
	Claims	1-11	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: WO03/066701  
D2: WO03/018658  
D3: EP-A-0261409  
D4: EP-A-0354472

The current application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 1-10 lacks novelty (PCT Article 33(2)) over D4.

Document D1 (claims 1-10) discloses polyurethane prepolymers which comprise alkoxysilane end groups and can be obtained by reacting a polyol component that has a molecular weight of 3000 to 20 000, low-molecular divalent and trivalent alcohols with a molecular weight of 32 to 500 (page 7/5-10), a diisocyanate component and compounds that contain alkoxysilane.

D1 does not provide any information as to the quantities of low-molecular alcohols to be used

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

and as claimed in the current application.

Document D2, in particular example 4, describes prepolymers which comprise alkoxysilane end groups and can be obtained by reacting polypropylene glycerol with a molecular weight of 260, polypropylene glycerol with a molecular weight of 1500, toluene diisocyanate and isocyanatomethyltrimethoxysilane.

Document D3 (example 2) discloses alkoxysilane-terminated polyurethane prepolymers which can be obtained by reacting polypropylene glycol with a molar weight of 2045, trimethylolpropane and MDI to produce NCO-terminated prepolymers. The prepolymer is then reacted further with mercaptopropyltrimethoxysilane (see the table on page 5).

D2 and D3 use a triol as the low-molecular alcohol and do not show the exact ratio of low-molecular alcohols to polyol as claimed in the current application.

Document D4 (claim 9, example 1) discloses adhesive and sealing compounds which contain alkoxysilane-terminated, moisture cross-linking prepolymers made from IPDI, butane diol, aminopropyltriethoxysilane and polyester polyol components, the molar ratio of butane diol to polyol lying within the claimed range. The feature of the "compounds (M) which harden at room

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temperature" in claim 1 is not a distinguishing feature - D4 also indicates post-curing on page 2/line 4. Claim 1 is a product claim, i.e. relating to mixtures, and is not a "product-by-process" claim, i.e. the feature "which harden at room temperature" does not apply when assessing novelty. In addition, post-curing at room temperature, as described in D4, is also covered by the general term "hardening". This feature is not sufficient for establishing the novelty of the product as per claim 1.

The present application also fails to meet the requirements of PCT Article 33(1) because the subject matter of claims 1-10 does not involve an inventive step (PCT Article 33(3)).

The subject matter of claims 1 to 10 is considered obvious to a person skilled in the art from prior art documents D2 and D3, since the prior art mentions the use of alkoxysilane terminated prepolymers for producing materials that have a better tear resistance and elongation at break.

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

**Box I****Basis of the report**

The amendments submitted with the letter of 13 April 2005 introduce substantive matter which, contrary to PCT Article 34(2)(b), goes beyond the disclosure in the international application as filed. The amendments are as follows: claim 1, "Non-solid in the uncross-linked state...".

This additional feature is not disclosed in the current description - the numerous passages cited by the applicant by way of support are not accepted.

The passages indicated by the applicant concern:

- i) statement of the problem, page 5/18-21: the applicant bases the disclosure of the feature on a disadvantage which occurs with the polymers described in DE2155258 owing to too a high content of urea units, which does not apply here. Document DE2155258 is one of the many prior art documents cited on pages 1-5. It is not acceptable to take an isolated disadvantage as a general feature from that document and to consider it part of the disclosure of the application. In addition, the common disadvantage in the prior art is

## Supplemental Box

that of poor tear resistance and/or elongation at break;

- ii) examples: the materials described in the examples are in a fluid state, but the feature "non-solid" cannot be generalised without taking into account all other features that are disclosed in the examples;
- iii) page 18/32 and page 18/35: these statements do not disclose the feature. The current invention, in particular claim 1, does not concern unfilled systems or solvent-containing systems.

Consequently, the submitted amendment to claim 1, "Non-solid in the uncross-linked state...", is not accepted. The reasoned statement with regard to novelty and inventive step is based on claim 1 without taking the submitted amendment into consideration.